Listing of Claims:

Claim 1. (currently amended) A method of inhibiting ~~comprising inhibiting~~ c-jun activation in mammalian or avian cells ~~by~~ comprising contacting the cells with ~~a substance that inhibits the activity~~ an inhibitor of Janus family kinase 3 (JAK-3).

Claim 2. (currently amended) The method of claim 1, wherein the ~~c-jun activation results from exposure of the~~ cells are exposed to ara-C, a topoisomerase II inhibitor, ultraviolet radiation, an alkylating agent, or ionizing radiation.

Claim 3. (currently amended) The method of claim 1, wherein ~~the c-jun activation results from exposure of~~ the cells are exposed to ultraviolet radiation or ionizing radiation.

Claim 4. (Previously cancelled)

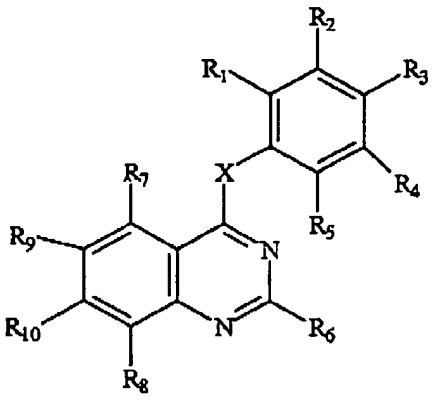
Claim 5. (Previously cancelled)

Claim 6. (currently amended) The method of claim 2, wherein the contacting occurs prior to the exposure.

Claim 7. (currently amended) The method of claim 2, wherein the contacting occurs after the exposure.

Claim 8. (currently amended) The method of claim 1, wherein the ~~substance~~ JAK-3 inhibitor is a protein.

Claim 9. (currently amended) The method of claim 1, wherein the ~~substance~~ JAK-3 inhibitor is a compound of formula I:



wherein

X is HN, $R_{11}N$, S, O, CH_2, or $R_{11}CH$;

R_{11} is hydrogen, $(C_1$-$C_4)$alkyl, or $(C_1$-$C_4)$alkanoyl;

R_1-R_8 are each independently hydrogen, hydroxy, mercapto, amino, nitro, $(C_1$-$C_4)$alkyl, $(C_1$-$C_4)$alkoxy, $(C_1$-$C_4)$alkylthio, or halo; wherein two adjacent groups of R_1-R_5 together with the phenyl ring to which they are attached may optionally form a fused ring~~, for example forming a naphthyl or a tetrahydronaphthyl ring~~; and further wherein the ring formed by the two adjacent groups of R_1-R_5 may optionally be substituted by 1, 2, 3, or 4 hydroxy, mercapto, amino, nitro, $(C_1$-$C_4)$alkyl, $(C_1$-$C_4)$alkoxy, $(C_1$-$C_4)$alkylthio, or halo; and

R_9 and R_{10} are each independently hydrogen, $(C_1$-$C_4)$alkyl, $(C_1$-$C_4)$alkoxy, halo, or $(C_1$-$C_4)$alkanoyl; or R_9 and R_{10} together are methylenedioxy; or a pharmaceutically acceptable salt thereof.

Claim 10. (Previously cancelled)

Claim 11. (Previously cancelled)

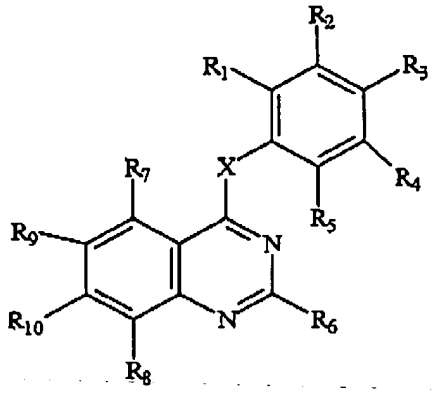
Claim 12. (Previously cancelled)

Claim 13. (Previously cancelled)

Claim 14. (currently amended) A therapeutic method for preventing or treating a pathological condition in a mammal wherein c-jun activation is implicated and inhibition

of ~~its~~ c-jun activation is desired, comprising administering to a mammal an inhibitor of JAK-3 ~~in need of such therapy, an effective amount of a substance that inhibits the activity of JAK-3~~.

Claim 15. (new) The method of claim 14, wherein the JAK-3 inhibitor is a compound of formula I:



wherein

X is HN, $R_{11}N$, S, O, CH_2, or $R_{11}CH$;

R_{11} is hydrogen, $(C_1$-$C_4)$alkyl, or $(C_1$-$C_4)$alkanoyl;

R_1-R_8 are each independently hydrogen, hydroxy, mercapto, amino, nitro, $(C_1$-$C_4)$alkyl, $(C_1$-$C_4)$alkoxy, $(C_1$-$C_4)$alkylthio, or halo; wherein two adjacent groups of R_1-R_5 together with the phenyl ring to which they are attached may optionally form a fused ring, ~~for example forming a naphthyl or a tetrahydronaphthyl ring~~; and further wherein the ring formed by the two adjacent groups of R_1-R_5 may optionally be substituted by 1, 2, 3, or 4 hydroxy, mercapto, amino, nitro, $(C_1$-$C_4)$alkyl, $(C_1$-$C_4)$alkoxy, $(C_1$-$C_4)$alkylthio, or halo; and

R_9 and R_{10} are each independently hydrogen, $(C_1$-$C_4)$alkyl, $(C_1$-$C_4)$alkoxy, halo, or $(C_1$-$C_4)$alkanoyl; or R_9 and R_{10} together are methylenedioxy; or a pharmaceutically acceptable salt thereof.